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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,468	04/27/2006	Norbert Mronga	289255US0PCT	5084
22850	7590	07/12/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER PARVINI, PEGAH	
			ART UNIT 1755	PAPER NUMBER
			NOTIFICATION DATE 07/12/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/577,468

Applicant(s)

MRONGA ET AL.

Examiner

Pegah Parvini

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20060725</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 7-8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application No. 2003/0051634 to Takahashi in view of US Patent Application Publication No. 2006/0058419 to Nagano.

3. Regarding claims 1 and 3, Takahashi teaches high chromatic flaky pigments having enhanced interference color with flaky substrate, which is preferably aluminum flake, which is coated with a metal oxide, preferably iron oxide ([0005], [0009], [0015], [0023], [0029]-[0030]). Furthermore, Takahashi teaches that said aluminum flakes have an average size of preferably between 5 and 50 μm and a thickness of between 0.1 and 5 μm (100 to 5000nm); in addition, pigment is used in different applications such as plastics, glazes, ceramics, cosmetics, paint, printing inks, and more ([0023], [0054]).

Takahashi does not disclose an aspect ratio for the aluminum flake substrate.

Nagano teaches an aluminum flake pigment having high luminance; said aluminum pigment flakes have an average thickness of 0.2 to 0.7 μm (200 to 700 nm),

Art Unit: 1755

an average diameter of 4 to 20 μm , and as aspect ratio of 15 to 50 ([0012]). Nagano, also, discloses that said pigment may be blended into paint and ink compositions.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Takahashi in order to include the aspect ratio of the aluminum flakes as that taught by Nagano motivated by the fact that Nagano discloses aluminum flake pigment with small average particle size, high brightness, and high luminance ([0001], [0014]-[0015]).

4. Regarding claim 2, Nagano teaches an aspect ratio of 15 to 50 for aluminum flake pigment with high luminance ([0012]).

5. Regarding claim 7, Takahashi discloses that the aluminum flake pigment is coated with a metal oxide, such as zirconium oxide, having an interference color ([0009]).

It is noted that claim 7 recites the limitation of a layer directly on the aluminum platelets "and/or" iron oxide layer wherein the layer material is from a list which includes zirconium.

6. Regarding claims 8 and 9, Takahashi discloses that the invention further relates to the use of the aluminum flaky pigment for paints, inks, security inks, plastics, and cosmetics ([0017]). The reference further, discloses that the invention is used in coating as well ([0017]).

7. Regarding claim 10, Takahashi teaches that said aluminum flaky pigment is used in combination with many other pigments such as fluorescent pigments ([0061]).

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi in view of Nagano as applied to claim 1 above, and in further view of US Patent No. 6,596,070 to Schmidt et al.

9. Regarding claims 4-6, Takahashi in view of Nagano disclose a pigment of aluminum flake substrate coated with iron oxide; said aluminum pigment flakes have an average thickness of 0.2 to 0.7 μm (200 to 700 nm), an average diameter of 4 to 20 μm , and an aspect ratio of 15 to 50.

The references as combined do not disclose the thickness of the aluminum oxide layer.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Nagano in view of Takahashi in order to obtain the iron oxide thickness of 18-25nm, 30-40nm, or 110-140nm motivated by the fact that Schmidt et al., also drawn to interference pigments on the basis of multiply coated platelet-shaped substrate which is used in automotive coatings and decorative coatings, disclose that the appropriate layer thickness which results on the desired color depends on the field of use and is generally from 10 to 1000nm (column 1, lines 1-10; column 3, lines 26-39).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 4,328,042 to Ostertag et al.

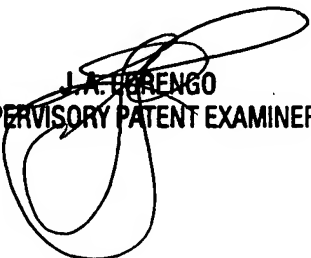
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pegah Parvini whose telephone number is 571-272-2639. The examiner can normally be reached on Monday to Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PP


J.A. BERENGO
SUPERVISORY PATENT EXAMINER